

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of the claims in the Application. With reference to the listing it is noted that, herewith, claims 1 and 9-11 are amended, and claims 12-18 are added. No new matter has been added.

Listing of Claims

1. (Currently Amended) A zoom lens system comprising, in order from an object side to an image side:

a 1st lens unit with positive optical power, the first lens unit consisting of one lens element;

a 2nd lens unit with negative optical power;

a 3rd lens unit with positive optical power; and

a 4th lens unit with positive optical power₁[[;]]

wherein the 1st lens unit and the 3rd lens unit move so as to be located closer to the object side at the telephoto end than the wide-angle end, and the following conditions are satisfied:

$$\underline{3.09} \leq \pm \theta < |M1/M2| < 7.0$$

$$2.0 < |M3/M2| < 8.0$$

where M1, M2 and M3 are the maximum amounts of movement of the 1st lens unit, 2nd lens unit and 3rd lens unit in the direction of the optical axis during zooming from the wide-angle end to the telephoto end, respectively.

2. (Original) The zoom lens system according to claim 1,

wherein the 2nd lens unit consists of two negative lens elements and one positive lens

element.

3. (Original) The zoom lens system according to claim 1,

wherein further the following condition is satisfied:

$$0.7 < |f_2 / \sqrt{(f_w \cdot f_t)}| < 1.0$$

where f_w and f_t are the focal lengths of the entire zoom lens system at the wide-angle end and telephoto end, respectively, and f_2 is the focal length of the 2nd lens unit.

4. (Original) The zoom lens system according to claim 1,

wherein further the following condition is satisfied:

$$0.6 < (\beta_{3t} \cdot f_w) / (\beta_{3w} \cdot f_t) < 1.2$$

where f_w and f_t are the focal lengths of the entire zoom lens system at the wide-angle end and telephoto end, respectively, and β_{3w} and β_{3t} are the lateral magnifications at the wide-angle end and telephoto end of the 3rd lens unit when focused at an object at infinity, respectively.

5. (Original) The zoom lens system according to claim 1,

wherein the 4th lens unit is moved to perform focusing.

6. (Original) The zoom lens system according to claim 1,

wherein the 3rd lens unit includes one or more aspherical surfaces.

7. (Original) The zoom lens system according to claim 1,

wherein the 4th lens unit includes one or more aspherical surfaces.

8. (Original) The zoom lens system according to claim 1,

wherein further the following condition is satisfied:

$$0.9 < f_3 / \sqrt{(f_w \cdot f_t)} < 1.5$$

where f_w and f_t are the focal lengths of the entire zoom lens system at the wide-angle end and telephoto end, respectively, and f_3 is the focal length of the 3rd lens unit.

9. (Currently Amended) The zoom lens system according to claim 1,

wherein both surfaces on the object side and the image side of the lens element constituting the 1st lens unit are spherical, and further the following condition is satisfied:

$$0.75 < (R_b + R_a) / (R_b - R_a) < 1.2$$

where R_a is the radius of curvature of the object side surface of the one lens element constituting the 1st lens unit, and R_b is the radius of curvature of the image side surface of that one lens element ~~R_a and R_b are the radii of curvature of the both surfaces, respectively.~~

10. (Currently Amended) The zoom lens system according to claim 1,[[;]]

wherein the zoom lens system forms an image on a solid-state image-pickup element.

11. (Currently Amended) A camera comprising:

the zoom lens system according to claim 1; and

a solid-state image-pickup element which receives an image formed by the zoom lens system.

12. (New) A zoom lens system comprising, in order from an object side to an image side:

a 1st lens unit with positive optical power, the first lens unit consisting of one lens element and both surfaces on the object side and the image side of the one lens element being spherical;

a 2nd lens unit with negative optical power;

a 3rd lens unit with positive optical power; and

a 4th lens unit with positive optical power,

wherein the 1st lens unit and the 3rd lens unit move so as to be located closer to the object side at the telephoto end than the wide-angle end, and the following conditions are satisfied:

$$1.0 < |M1/M2| < 7.0$$

$$3.5 < |M3/M2| < 7.0$$

$$0.75 < (Rb+Ra)/(Rb-Ra) < 1.2$$

where M1, M2 and M3 are the maximum amounts of movement of the 1st lens unit, 2nd lens unit and 3rd lens unit in the direction of the optical axis during zooming from the wide-angle end to the telephoto end, respectively, Ra is the radius of curvature of the object side surface of the one lens element constituting the 1st lens unit, and Rb is the radius of curvature of the image side surface of that one lens element.

13. (New) The zoom lens system according to claim 12,

wherein the 2nd lens unit consists of two negative lens elements and one positive lens element.

14. (New) The zoom lens system according to claim 12,

wherein further the following condition is satisfied:

$$0.7 < |f2/\sqrt{(fw \cdot ft)}| < 1.0$$

where fw and ft are the focal lengths of the entire zoom lens system at the wide-angle end and telephoto end, respectively, and f2 is the focal length of the 2nd lens unit.

15. (New) The zoom lens system according to claim 12,

wherein further the following condition is satisfied:

$$0.6 < (\beta3t \cdot fw)/(\beta3w \cdot ft) < 1.2$$

where fw and ft are the focal lengths of the entire zoom lens system at the wide-angle end

and telephoto end, respectively, and β_{3w} and β_{3t} are the lateral magnifications at the wide-angle end and telephoto end of the 3rd lens unit when focused at an object at infinity, respectively.

16. (New) The zoom lens system according to claim 12,
wherein further the following condition is satisfied:

$$0.9 < f_3 / \sqrt{f_w \cdot f_t} < 1.5$$

where f_w and f_t are the focal lengths of the entire zoom lens system at the wide-angle end and telephoto end, respectively, and f_3 is the focal length of the 3rd lens unit.

17. (New) The zoom lens system according to claim 12,
wherein the zoom lens system forms an image on a solid-state image-pickup element.

18. (New) A camera comprising:

the zoom lens system according to claim 12; and

a solid-state image-pickup element which receives an image formed by the zoom lens system.